North Shore Gas - South Plant

Meeting

Taken on: May 20, 2015

JENSEN LITIGATION SOLUTIONS

180 North LaSalle Street Suite 2800 Chicago, IL 60601 312.236.6936 877.653.6736 www.jensenlitigation.com



1	
2	
3	
4	PUBLIC MEETING
5	U.S. EPA PROPOSED CLEANUP PLAN
6	FOR TAR POLLUTION
7	NORTH SHORE GAS SOUTH PLANT
8	
9	
10	LILAC COTTAGE, BOWEN PARK
11	1911 N. SHERIDAN ROAD
12	WAUKEGAN, ILLINOIS
13	
14	
15	MAY 20, 2015
16	6:00 P.M.
17	
18	
19	
20	
21	
22	Reported by:
23	Carrie McCann, CSR
24	



1	APPEARANCES:	
2	Mr. Heriberto León	
3	Mr. Ross Del Rosario	
4	Mr. David Klatt	
5	Mr. Marcus Byker	
6	Mr. Paul Lake	
7	Mr. Naren Prasad	
8	Mr. Peter Felitti	
9		
10		
11		
12		
13		
14		
15		
16		
17		
18		
19		
20		
21		
22		
23		
24		



MR. LEÓN: Good evening and welcome. My name is Heriberto León. I am the community involvement coordinator for the U.S. Environmental Protection Agency, Region 5 based in Chicago. We are here tonight to present the U.S. EPA's proposed interim cleanup plan for one of Waukegan's former manufactured gas plant, the North Shore Gas South Plant.

With me tonight is Ross

Del Rosario who is the U.S. EPA's remedial project manager for the site. He will first make a brief presentation about the site and the proposed cleanup. After his presentation we will do a question and answer session. Then we will open it up for comments.

We have a court reporter. So please, before you present your oral comments, do state your name and spell it so we record it accurately along with your comments.

All the comments that the U.S.



1	EPA receives orally tonight as well as
2	other comments coming via U.S. Mail and
3	electronically through our website will be
4	entered and addressed in our responsiveness
5	summary that will be issued and available
6	later this summer. The comment period
7	started May 6 and runs through June 5.
8	Please note our web page on the
9	back sheet. We have additional copies of
10	it on the table here in the front. You can
11	use that web page for entering your
12	comments through June 5.
13	So let's go ahead and turn it
14	over to Ross Del Rosario to make his
15	presentation. Ross?
16	MR. DEL ROSARIO: Thank you,
17	Heriberto. Good evening, ladies and
18	gentlemen.
19	Again, my is Ross Del Rosario.
20	I am the EPA project manager assigned to
21	oversee the ongoing work at the North Shore
22	Gas Former South Plant manufactured gas
23	plant site here in Waukegan, Illinois.
24	The purpose of my presentation,



Τ	my very brief presentation is essentially
2	to describe EPA's preferred approach to
3	deal with a major source of contamination
4	at the site, to address what we call DNAPL,
5	which is dense non-aqueous phase liquids at
6	the former South Plant site.
7	I have some slides that describe
8	DNAPL in more detail to folks that are not
9	familiar with this particular material,
10	just for example, to give you a better idea
11	of what we are dealing with at the site. I
12	also have an example over here that you can
13	take a look at.
14	The other reason why we are
15	having this presentation, as Heriberto
16	mentioned, is to provide the community an
17	opportunity to comment on this proposed
18	plant. Let me make it clear. I am
19	basically repeating what Heriberto said, is
20	that this is an interim plan to address a
21	specific area, a concern at the site,
22	specifically with regards to the source of
23	groundwater contamination.
24	Before I move forward, I would



1	like to just briefly acknowledge the
2	members of the team, the EPA and State
3	team.
4	I have on my left Peter Felitti,
5	our counsel, regional counsel from the EPA.
6	I have Paul Lake, our state
7	advisor, technical advisor. Paul, nice to
8	see you.
9	I have Dave Klatt, our
10	consultant from CH2M HILL who provides
11	technical advice to the EPA.
12	And, of course, Heriberto León
13	who is in charge of community involvement.
14	The one thing I want to add is
15	that the Illinois EPA does support the
16	preferred approach that we are going to be
17	describing in this brief presentation. So
18	let's go ahead.
19	Rather than state this at the
20	end of our presentation, I want to just
21	describe to you what our preferred
22	alternative or preferred approach would be
23	under the document that was recently
24	approved by EPA, produced by North Shore



1	Gas or Integrys. I am sorry. What we are
2	preferring, what our preferred approach
3	would be is what we what is described in
4	the document as a physically-enhanced DNAPL
5	recovery, also called D5 in the Focus
6	Feasibility Study.
7	What it basically entails is to
8	install a series of horizontal wells into
9	the DNAPL and the groundwater region. We
10	are going to be injecting treated
11	groundwater to help push the DNAPL into
12	recovery wells. We are going to pump
13	collected DNAPL from the wells, treat the
14	groundwater on-site prior to reinjecting it
15	to create this hydraulic gradient to push
16	the DNAPL into these recovery wells. We
17	are going to ship the DNAPL off-site for
18	treatment and disposal. And this
19	particular alternative that we are
20	proposing is going to take 8 years at a
21	cost of approximately \$10.6 million.
22	Briefly just to give you
23	graphically a concept of what is going to
24	happen, you are seeing sorry. You are



1	seeing the construction of these wells,
2	these white circles out here. These are
3	injection wells at the corners over here.
4	You have these parallel recovery wells
5	extraction wells, I am sorry, extraction
6	wells here, one in the groundwater region
7	and one in the DNAPL region. Essentially
8	the concept is to create or increase the
9	gradient in the groundwater to help push
10	the DNAPL into these recovery wells. And
11	you would also so you have these
12	recovery wells taking out the well,
13	collecting the groundwater, and through
14	these sumps you could collect the DNAPL.
15	This is a picture, and I have to
16	apologize, it is not very clear, is the
17	system for treating groundwater. I think
18	it is separating the groundwater from the
19	DNAPL. So this is sort of just the layout
20	of the area.
21	Just for informational purposes,
22	this is sort of the picture of the site,
23	just an overview. I think I have an error
24	in here. This one shouldn't be included.



1	It was just corrected. So this particular
2	breakwater, this is part of the Port
3	District Authority, is in error as being
4	part of the site. So ignore this.
5	The area itself is approximately
6	about 22, 23 acres, and it is essentially
7	composed of the former manufactured gas
8	plant site which is approximately 2 acres.
9	The main road here is Pershing Road. You
10	have the Elgin Joliet and Eastern Railroad
11	track here, the Waukegan Port District
12	Authority property here. You have a small
13	strip of City of Waukegan property here.
14	And this large area is owned by Akzo-Nobel.
15	Just to give you a sense of what
16	each of these sites looks like, these
17	parcels of land could you lower the
18	lights? Is that better for you folks?
19	So this is basically what you
20	are looking at from a street level view.
21	You have this vacant lot, 2-acre lot which
22	is where the former manufactured gas plant
23	was in its heyday. It is now a vacant lot.
24	You have the Akzo-Nobel facility. You have



the administrative building from the Port 1 2 You have the maintenance District. 3 building. And looking east, you are looking at this beautiful marina, the 4 Waukegan Harbor Marina, the south harbor I 5 believe. 6 Just to give you sort of a sense of a timeline, the manufactured gas plant 8 9 was constructed in 1897. Owned by North 10 Shore Gas in 1900. Its successor was 11 Integrys from 2006 to the present. 12 plant basically operated for about 50 years 13 until it was eventually demolished in the 14 early '50s. There was a bunch of State 15 inspections that occurred in the '90s, 16 along with gas company investigations 17 stretching all the way to 2007. At somewhere around 2003, 2004, 18 19 under the State's voluntary cleanup 20 program, the gas company did some cleanup 21 at the former gas plant which basically 22 involved excavating a significant volume of 23 contaminated soil and materials at the 24 The blue -- And, again, I have to site.



apologize, you can't read it. But there is 1 2 poster boards over there that give you a 3 better sense of the depth of the excavation. 4 5 But the blue basically represents, I think, down to 3 and a half 6 And I think this fuchsia colored one feet. is, I don't know, is that about, close to 8 9 the water table, this particular area. there was some significant level of --10 11 significant amount of work back in 2003, 12 2004 involving the excavation of this 13 contaminated soil and debris that occurred 14 at this former gas plant site. 15 I believe there was also a 16 barrier wall that was constructed somewhere 17 out here. But we can get down to specifics 18 later on. 19 Continuing the timeline, in 2006 20 the parent company, Integrys, approached EPA about being put under the Superfund 21 22 program, cleanup program. We agreed. In 23 2007 we reached settlement with the company 24 to conduct an RI/FS through an



1 administrative order on consent. The 2 actual field work for conducting the investigation started somewhere around 2009 3 and ended in 2012. There was an extensive 4 sampling going on at the site. I think 5 there was like 12, 13, 14 rounds of 6 sampling at the site. The EPA received or approved the 8 9 Remedial Investigation Report, the RI 10 report, in January of 2014. Some of the 11 highlights of the report basically found 12 that contaminants of concern were found 13 in -- which drove the risk at the site were 14 found in the soil, the groundwater, soil 15 NAPL is really the source of the 16 contamination. But the type of 17 contaminants that we saw in this media 18 included these set of compounds usually 19 associated with the burning of organic 20 material such as coal, wood, paper, that 21 kind of stuff, creating these set of 22 compounds called polynuclear aromatic 23 hydrocarbons, such as naphthalene, 24 chrysene, benzo(ghi)perylene. You also



have a group of compounds called BTEX, 1 2 benzene, ethylbenzene and xylene. You have metals, such as arsonic and lead. 3 So you found these types of contaminants in these 4 5 media that were driving the risks at the site. 6 Speaking of risk, the remedial investigation, the risk assessment portion 8 9 of that report suggested that potential risks were potentially risks to humans 10 through incidental ingestion or dermal 11 12 contact were possibly through contaminated 13 soil and groundwater as well as inhalation 14 of contaminated vapors. I am sorry about 15 the misspelling here. From the ecological 16 standpoint, there were potential ecological 17 risks due through exposure to sediment and surface water. 18 19 Continuing the timeline, we 20 approved the Focus Feasibility Study, the 21 FFS, in April, on April 9 of this year, 22 specifically with regards to addressing the

And the proposed plan which talks

about the EPA's preferred alternative which



DNAPL.

23

24

is contained -- which is included in the --1 2 which is in the site repository in our 3 administrative record was approved on April 29, 2015, less than a month ago. 4 is sort of the timeline. 5 Just to give you a sense of 6 breadth of what we are dealing with as far as DNAPL, here is sort of a map, a 8 9 distribution by thickness of the DNAPL. Ιf 10 you take a look at the legend over here, 11 the most -- the thickest part of the DNAPL 12 region is centered here near the Port 13 District Authority location and also 14 somewhere close to where the former 15 manufactured gas plant site is located. 16 these are the thickest DNAPL regions that 17 you would find. These blue dots represent monitoring wells if I am not mistaken. 18 19 There was an extensive monitoring well 20 network out here. 21 Just to give you a sense of what 22 we are dealing with here, the latest 23 estimate that we have based on some recent 24 calculations in the Focus Feasibility Study



suggested that we are dealing with 1 2 approximately 500,000 gallons of DNAPL 3 material underneath the site, pretty extensive. 4 5 This is sort of a graphical representation of what the remedial 6 investigation found. I basically just went through this quickly with you in the 8 9 previous slide. What we are seeing here is the presence of the DNAPL contributing to 10 11 groundwater contamination at the site which 12 causes it to exceed the EPA's and the 13 State's screening levels generally set at 14 10 to the minus 6th, 1 in a million. 15 have the water table in here. 16 contamination in the groundwater also 17 influences the -- the soil vapor exceeding 18 screening levels which could possibly 19 affect -- be seen in the maintenance 20 building, the Port District maintenance 21 building. Just to kind of give you a sense 22 of groundwater direction, groundwater flows 23 from west to east towards the lake. You have a clay layer over here 24



which is probably about 15 to 20 feet below 1 2 ground surface. You have the water table here probably around, I would say, about 7 3 feet below ground surface, BGS. So that is 4 sort of a very simplified representation of 5 6 what is going on at the site. There is more details, of course, in the Remedial Investigation 8 9 Report if you care to read it. It is in the repository if you are interested in 10 11 getting more details. 12 What is a DNAPL? Well, I put up 13 this slide to sort of give you a sense of 14 what we are dealing with over here. 15 Generally a DNAPL is a liquid that does not 16 really mix with water and whose density is 17 greater than water, what we call sinkers. 18 A DNAPL could be creosote, coal tar, 19 chlorinated solvents such as 20 trichloroethylene, PCBs. These are 21 pictures of what the DNAPL would look like. 22 I have a sample of this if you 23 want to take a look at it, what a DNAPL 24 would look like. I got that at one of



those seminars in there. It is a nice 1 2 representation. Sometimes it is hard to sort of 3 describe what we are dealing with as far as 4 So I sort of created this graph to 5 DNAPL. 6 kind of simplify it. So this is what you would expect some of the examples of what the material is. 8 9 Why are we addressing DNAPL? 10 Well, primarily it is the source of the 11 site-wide groundwater contamination. 12 groundwater is basically -- the 13 contaminated groundwater is driving the 14 risk at the site. We can't really restore 15 groundwater quality until we address the 16 DNAPL which is the source of the 17 contamination. 18 Our Superfund regulations have 19 an expectation that, whenever it is 20 practicable, that we restore groundwater to 21 beneficial use within a reasonable time 22 frame. And, you know, if we don't address 23 the source of the groundwater

contamination, you can't possibly meet that



24

goal of restoring groundwater to beneficial 1 2 So it is really important that you address the contaminant source. 3 DNAPL in the agency's, I guess, 4 designation is referred to as principal 5 6 threat waste. And the expectation when you deal with principal threat waste is to treat it. And, you know, actively treat it 8 9 as opposed to containing it through some 10 sort of engineering control. So these are sort of the three 11 12 major points of why we need to address 13 It is in the law. It is in the DNAPL. 14 And it is a way for us to get regulations. 15 a cleanup for the groundwater in the 16 future. 17 Our cleanup objective in the 18 report Focus Feasibility Study is stated as 19 reduce the mass and mobility of recoverable 20 DNAPL to the extent practicable. That's 21 what is -- that's the exact wording that we 22 have in the Focus Feasibility Study. 23 Now, getting to the meat of the 24 presentation, the various remedial



1

2

3

4

5

6

8

9

10

11

12

13

14

15

16

17

18

19

20

21

22

23

24

alternatives that we evaluated that were sort of described in the feasibility study that we approved back in late April involve these various alternatives. One which is prescribed, you have to always have this as part of your alternatives, is the no action alternative.

The other alternatives that we are dealing with or that we have evaluated include just using institutional controls which involves restricting the use of groundwater and a management plan for intrusive activities. There is nothing specific about this. This will -- You know, you are going to get -- if this particular option is chosen, then we would get down to getting more details and just figuring out how we can get these types of controls in place. These are non-engineering controls.

One other option that was considered in the Focus Feasibility Study was to construct a vertical engineered barrier. There are various types that were



1	being proposed in the report. The types
2	that were looked at or described include
3	soil bentonite, high-density polyethylene,
4	or steel sheet piling. This particular
5	barrier, engineered barrier wall is going
6	to be installed down to the clay layer
7	which I believe is on the average about 15
8	feet below ground surface.
9	The other alternatives that were
10	considered include a horizontal well DNAPL
11	recovery. You have this which is our
12	preferred approach, the physically-enhanced
13	DNAPL recovery. You have a
14	chemically-enhanced DNAPL recovery where it
15	is essentially the same as these, D4 and
16	D5, with the addition of surfactants to
17	enhance the separation of DNAPL and have a
18	greater removal efficiency. You also have
19	thermally-enhanced recovery using electric
20	resistance heating, ERH.
21	How do we evaluate the
22	alternatives? The EPA uses a what it
23	refers as to the nine-criteria evaluation
24	which is composed of two primary components



here, five balancing criteria, and two what 1 2 we consider as modifying criteria. The threshold criteria which 3 every remedy must meet in order to be 4 considered or in order to be chosen is 5 6 protecting human health and environment and attaining what we refer to as applicable or relevant and appropriate requirements or 8 9 ARARs which are more federal and more 10 stringent state requirements, such as cleanup standards, standards of control, 11 12 other things which address the various 13 circumstances at the site, you know, the 14 type of contaminants that you have, the 15 location, what type of remedial action you 16 are dealing with. So attaining ARARs and protecting human health and environment are 17 what we consider as threshold criteria 18 19 which an alternative must meet in order to 20 be considered or in order to be chosen. 21 Then there is just the balancing 22 criteria that we looked at, long-term 23 effectiveness and permanence, reduction of 24 toxicity, mobility and volume, short-term



1	effectiveness, the implementability of each
2	alternative, and the cost. These are
3	further defined in the feasibility study if
4	you are interested, all of these criteria.
5	And the modifying criteria will
6	also be taken into consideration. But
7	these will be you know, these types of
8	criteria can only be evaluated after we go
9	through this public comment period.
10	Now, as far as actually applying
11	these criteria, there is really a two-step
12	process according to the Superfund
13	guidelines. You evaluate each alternative
14	individually against the evaluation
15	criteria. Again, I must, you know, just
16	mention that you have to meet the threshold
17	criteria which are these first two.
18	Then the criteria must be
19	compared against each other, comparative
20	analysis of alternatives against evaluation
21	criteria. Identify advantages and
22	disadvantages of each alternative relative
23	to one another. So these are the two sort
24	of discussions that you would find in the



feasibility study.

After you are done going through the evaluation criteria, this is what you generally would see in a report for EPA as part of a Focus Feasibility Study. You are going through the evaluation. Do you meet the criteria? Do you not meet the criteria? There is also, in this particular case as far as short-term effectiveness, there was some information with regards to how long it would take to meet the cleanup objective.

So as a result of this -- well, the EPA basically proposes its preferred approach using the best balanced, based on the best balance when compared to the criteria.

Our rationale for proposing D5 is a couple-fold. One is the significant reduction in time frame comparing it to the -- through one of the options, D4, the horizontal well DNAPL recovery, 8 years versus 31 years which is quite significant with a moderate increase in cost from about



4.6 to about \$10.6 million, 4.7 to 10.6. 1 2 We also see a permanent reduction in DNAPL 3 volume when comparing it to just institutional controls or the vertical 4 engineered barrier. Using D5 also allows 5 us for a suitable remedy of groundwater in 6 a final record of decision. So those are three of the major reasons why we believe 8 9 the preferred alternative D5 is what we are 10 proposing. 11 What are the next steps after 12 this public meeting? Well, we are going to 13 be collecting. We are going to be 14 preparing our response to the comments that 15 we receive from all interested parties. 16 are going to include that in a record, a 17 decision for DNAPL. I have to also mention that this 18 19 particular record of decision is an interim 20 action -- for an interim action to just 21 specifically address DNAPL. We are going 22 to be issuing a final record of decision 23 for the whole site which addresses the

groundwater, the soil, and the other media



24

1	with unacceptable risks. We are going to
2	negotiate cleanup with the company. This
3	should be Integrys. My apologies, Naren.
4	We are going to prepare a design for the
5	remedy, whichever is chosen through the
6	negotiated agreement. We are going to
7	construct the the party is going to
8	construct and operate the DNAPL remedy.
9	Again, as far as the next steps,
10	we are going to be the EPA is going to
11	be evaluating the remedy performance.
12	There are steps and procedures in the Focus
13	Feasibility Study where we are going to be
14	monitoring the performance of whatever
15	chosen remedy there is. And there is a way
16	to determine if enhancements are necessary,
17	whether you are going to go whether you
18	need to go with a more aggressive approach.
19	It all depends on whether that the
20	decision criteria says it is needed. You
21	are not meeting the performance standard.
22	It is taking too long, those kinds of
23	considerations. So there are performance
24	measures that need to be met, and there are



ways to move the more aggressive approaches 1 2. if necessary. Like I said, we are going to 3 evaluate and propose the cleanup 4 alternatives for the remaining media of 5 concern, such as groundwater, soil, soil 6 vapor. When that thing is done, we are going to be issuing a final ROD for those 8 9 media. Again, as we did with the DNAPL, 10 11 we are going to be negotiating a cleanup 12 agreement with Integrys, North Shore Gas. 13 And we are going to go ahead hopefully 14 through a negotiated settlement to 15 construct and operate the final remedy. 16 That's my presentation. You can open it up for questions and answers. 17 18 Thank you. 19 MR. LEÓN: Thank you, Ross. Ι 20 think we can move to just actually having 21 both questions and answers as well as any 22 comments. 23 My gas bill still MR. ELEY: 24 comes out labeled North Shore Gas.



```
1
                 MR. DEL ROSARIO: Is that a
 2
     comment?
 3
                 MR. ELEY: Yes. So it might be
     owned by somebody else, but they are still
 4
     doing business as North Shore Gas.
 5
                 MS. OWEN:
 6
                            I have a question,
     and I have several comments.
                 MR. LEÓN:
                            Do you want to state
 8
 9
     your name and spell it?
10
                 MS. OWEN:
                            My name is Verena
11
     Owen, V-E-R-E-N-A, O-W-E-N.
                                  I live in
12
     Winthrop Harbor, but my husband and I have
13
     roots in Waukegan. We lived here for a
14
     little bit. He was a teacher in Waukegan,
15
     retired a couple of years ago. We have a
16
     boat in the Waukegan Harbor. My heart has
17
     always been in Waukegan. I am always
18
     interested in what is happening here.
19
     thank you very much for this meeting
20
     tonight.
21
                 I do have a question about one
22
     of your slides.
                      I simply didn't
23
                  There was a slide where you
     understand.
24
     had the three reasons on it. The last one
```



was something about groundwater. 1 I am not 2 sure I really understood what you were trying to say. If you could perhaps pull 3 it up again and show it again? 4 5 MR. DEL ROSARIO: Sure. I think that one. 6 MS. OWEN: Yes, that one. What does the last point I am not sure I understand that. 8 9 MR. DEL ROSARIO: Well, it talks 10 about the fact that you have -- well, there 11 is going to be a problem trying to find a 12 suitable remedy for groundwater if you have 13 a continuing source of contamination at the 14 site. 15 MS. OWEN: I thought that's what 16 this was all about, to find that remedy. So I don't understand that point. 17 18 MR. DEL ROSARIO: This preferred 19 approach that we are dealing with here is 20 an interim action to address the source of 21 the contamination. We are going to be 22 issuing a decision on how to address that 23 source of contamination for the 24 groundwater. Down the road we are going to



```
be issuing a final record of decision to
 1
 2
     address the groundwater, the soil, and the
 3
     soil vapor.
                 So it is sort of a phased
 4
 5
     approach where you want to address the
     source of the contamination first.
 6
     that.
            Let the groundwater heal. And it
     would put you in a position of finding a
 8
 9
     suitable remedy for the groundwater.
10
     That's basically what we are talking about
11
     here.
12
                 MS. OWEN:
                             Thank you.
                                         That
13
     explains it. Would that be parallel
14
     processes, or would that be you do one
15
     thing first and then the next phase?
16
                 MR. DEL ROSARIO:
                                    That's a good
17
     question.
                             I have lots of those.
18
                 MS. OWEN:
19
                 MR. DEL ROSARIO: The good thing
20
     is that before we embark on the focus on
21
     doing this interim action for DNAPL, we did
22
     have a feasibility study that talked about
23
     the various alternatives for all of the
24
             There is a lot of information in
     media.
```



that old feasibility study which we are 1 2 going to be using to kind of continue this conversation with the gas company as we 3 move along here. There is a lot of 4 information and experience already that has 5 been developed over the past couple years 6 as we go along this investigation and developing alternatives. It is not like we 8 9 are starting from scratch. 10 When was that study MS. OWEN: 11 done, do you happen to know? 12 MR. DEL ROSARIO: I believe that 13 the previous feasibility study was done 14 back in May of 2014. 15 MS. OWEN: You said old. Ιt 16 wasn't like 20 years ago? MR. LEÓN: It seems like 20 17 18 years. 19 MR. DEL ROSARIO: I could be 20 wrong about 2014. When we reviewed the 21 data, it was quite extensive data, 22 information that was provided to us, we 23 realized that we couldn't move forward on 24 coming up with a final remedy until we



dealt with this particular issue. 1 2 MS. OWEN: Thank you. I don't 3 want to -- I would be happy to sit down and let other people. 4 5 MR. LEÓN: No. You are okay. 6 MS. OWEN: I forgot in my introduction that I am a member of the Sierra Club and I am a member of Clean 8 9 Power Lake County. But I am speaking for 10 myself tonight just to be clear because 11 some of you know which organizations I 12 belong to. 13 My question is, is there a 14 current public -- does it currently pose 15 any public danger? You talked about vapors 16 and contaminated soil, the site. Does it? 17 MR. DEL ROSARIO: Could you 18 repeat the question? 19 MS. OWEN: Yes. Does the site 20 currently pose any public health danger? 21 You mentioned vapors and contaminated soil. 22 This is -- Some of the site, people can 23 They can sit there. walk there. They can 24 read there. Is there some public danger?



1 MR. DEL ROSARIO: We talk about 2 potential risk and dangers when you disturb the ground, particularly with regards to 3 construction workers out there. But if you 4 don't disturb the ground, you really 5 don't -- are not exposing yourself to that 6 particular contamination. 8 MS. OWEN: Vapors? But vapors 9 can come up through the soil. 10 MR. DEL ROSARIO: There were 11 specific areas in the Remedial 12 Investigation Report which suggested that 13 there may be potential risks in the 14 maintenance building. But my understanding 15 is that the maintenance building, the Port 16 District's maintenance building has a vapor 17 mitigation system. So they do have a 18 system, as far as we understand, of 19 addressing the vapors. 20 Are there currently MS. OWEN: 21 like monitoring probes to see if anything 22 mitigates off-site into the parking lot or 23 the other building, and do you think that 24 would be necessary?



1	MR. DEL ROSARIO: My
2	understanding is that there is ongoing
3	sampling, periodic sampling out at the
4	site.
5	MS. OWEN: Air sampling?
6	MR. DEL ROSARIO: We have
7	groundwater sampling that continues on a
8	semiannual basis twice a year.
9	MS. OWEN: Air?
10	MR. DEL ROSARIO: Yes, air
11	sampling. I don't believe we air is an
12	issue at the site.
13	MR. FELITTI: There is not going
14	to be a problem with vapors unless it is in
15	the building. If it is dissipating to the
16	outside, it is not going to be a risk.
17	MS. OWEN: Really?
18	MR. FELITTI: From this site it
19	is not going to be a risk, no.
20	MS. OWEN: I read all the things
21	that he mentioned. None of them sounded
22	particularly healthy to me.
23	MR. FELITTI: The levels that
24	they would be coming out would not be



```
1
                            So you know the level
                 MS. OWEN:
 2
     that is coming out?
 3
                 MR. FELITTI: That's the
     analysis that we did to determine what the
 4
     risk levels were. The risk factor is in
 5
     the building, it is possible --
 6
                 MS. OWEN: Plus, it would
     collect.
               I understand that.
 8
                 MR. FELITTI: It would collect.
 9
10
                 MS. OWEN: So how long did this
11
     plant operate?
12
                 MR. DEL ROSARIO: Well,
13
     according to the information we had, you
14
     are talking about the gas plant operations?
15
                 MS. OWEN:
                            Yes.
16
                 MR. DEL ROSARIO: Well, it
17
     started -- it was constructed in 1897.
18
     it continued operations until 1946, roughly
19
     50 years.
20
                            Is that about the
                 MS. OWEN:
21
     same time that the North Plant operated,
22
     just about?
23
                 MR. DEL ROSARIO: I can't tell
24
     you right now.
                     I have to take a look at
```



```
the document. I don't know --
 1
 2
                 MS. OWEN: I remember it was
     built before the turn of the century. I
 3
     just don't know.
 4
                 MR. DEL ROSARIO: I don't know.
 5
     I will have to look back and take a look at
 6
     the information.
                 MS. OWEN:
                            So when was a problem
 8
 9
     first detected at the North Plant?
10
                 MR. DEL ROSARIO: Well, this
     discussion centers on the South Plant. You
11
12
     are dealing with the North Plant. I can
13
     answer your question later. But I -- I am
14
     not in a position to answer the question
15
     with regards to the North Plant. I don't
16
     have --
17
                 MS. OWEN: I understand.
18
                 MR. DEL ROSARIO: -- my
19
     documents here.
20
                            It seems that the
                 MS. OWEN:
21
     North Plant cleanup is further advanced
22
     than this one. I was just trying to figure
23
     out why.
24
                 MR. DEL ROSARIO:
                                   It is a good
```



```
We can certainly talk later.
 1
     question.
                                               Ι
 2
     can give you the facts. I don't have it
 3
     with me right now.
                 MS. OWEN: I understand.
 4
                                           YO11
     said I could ask questions. You didn't say
 5
 6
     you had to have all the answers.
                 MR. DEL ROSARIO:
                                   I try.
                 MR. ELEY:
                            The North Plant site,
 8
 9
     there was no building on the site. And
10
     there are buildings on the South Plant
11
     site.
12
                 MR. DEL ROSARIO: Yes.
13
                 MR. ELEY:
                            Which is going to
14
     hinder things, makes it more complicated.
15
                 MR. DEL ROSARIO: I can't answer
16
     that question right now. We are not at the
17
     particular stage.
                 MS. OWEN:
                            Well, at sometime
18
19
     somebody noticed something because I
     believe the Illinois EPA was the first one
20
21
     that did some kind of investigation out
22
     there? Yes? I am looking at the wrong
23
              I am sorry. You are the
     person.
24
     consultant.
                  Sorry.
```



1	MR. LAKE: I am Paul Lake from
2	the Illinois EPA. Yes, we did do initial
3	investigations out there in the '90s. And
4	North Shore Gas got into our voluntary
5	cleanup program as Ross described. And
6	through cooperative efforts, they did
7	remove the top layer of soil out at the
8	site.
9	MS. OWEN: Did you look at the
10	groundwater at the time?
11	MR. LAKE: I don't believe that
12	was part of the initial investigations, but
13	eventually they did. That's how they
14	discovered the amount of DNAPL or the
15	product that is out there, yes.
16	MS. OWEN: Well, looking that it
17	is now 2015, so this all started 25 years
18	ago. That seems a very long time for
19	something to sit there and no action. I am
20	sorry, guys. I don't understand that. You
21	don't have to answer. That was a comment.
22	Having lived here since the mid
23	'80s or nearby, I have been to countless of
24	these meetings. It always amazes me that



```
1
     you are not done.
                        It amazes me how long
 2
     this takes and how much longer they take,
 3
     and then there is yet another step. Then
     we are finally ready to give it back,
 4
     something goes wrong. It is extremely
 5
     frustrating and quite frightening to me
 6
     that these things continue to happen.
                 So I have a question about the
 8
 9
     remediation option that you all picked.
10
                 MR. DEL ROSARIO: Let me make a
11
     correction. Nothing has been chosen.
12
     are proposing.
13
                            The best, whatever
                 MS. OWEN:
14
     you want to call it.
15
                 MR. DEL ROSARIO: The preferred.
16
                 MS. OWEN:
                            Preferred is fine.
     So I have two questions about that. So if
17
18
     money was not a consideration, which one of
19
     those is the best one in all your experts?
20
                 MR. FELITTI:
                               Money is a
21
     consideration as well.
22
                 MS. OWEN: I just said if there
23
     was --
24
                 MR. FELITTI: We don't look at
```



```
1
     it that way.
 2
                 MS. OWEN: I don't really --
     yes, I understand that. But as a person
 3
     who is not really all that technically
 4
     savvy and I have all these experts in the
 5
     room, I thought today was the time to
 6
     really ask that question of you all because
     I don't know the answer. But most all of
 8
 9
     you here do know. So let me repeat it.
10
     And I hear you that money has to be part of
11
     the decision.
12
                 My question is, just looking at
13
     the technical options, which one is the
14
     best?
15
                 MR. FELITTI: I would say
16
     probably D4 then if you are saying money is
17
     not an issue. Just do the one that
18
     collects it over 30 years.
19
                 MS. OWEN: Are you being
20
     serious?
21
                 MR. FELITTI: You are saying
     that money is not the issue --
22
23
                 MS. OWEN:
                            Yes.
24
                 MR. FELITTI: -- and just
```



```
looking at the --
 1
 2
                            If you could spend
                 MS. OWEN:
 3
     all the money in the world, which one is
     the best option?
 4
                 MR. FELITTI: If you spent all
 5
     the money in the world, then I would say
 6
     dig the thing up and spend $100 million.
                                                Ι
     wouldn't pick any of these remedies.
 8
 9
                 MS. OWEN:
                            That was not --
10
                 MR. FELITTI:
                               But that is an
11
     irrelevant answer because it can't be done.
12
                 MS. OWEN:
                            It might not be a
13
     relevant answer, but I think it was a
14
     relevant question. Thank you.
                 Actually, I think after that
15
16
     kind of criticism of my questioning, I
17
     think I am going to sit down because that
18
     wasn't very nice and not very welcoming of
19
     people. We take the risk to stand here in
20
     front of you all and ask questions, and we
21
     get pushback like that.
22
                 Thank you very much. I am going
23
     to leave now.
24
                            D4 was a lot cheaper.
                 MR. ELEY:
```



```
The only thing is it takes --
 1
 2
                 MR. LEÓN:
                            Did you want to make
     a comment, sir? You are on the record.
 3
     do have a court reporter, and we want to
 4
     make sure that we record your name
 5
 6
     accurately.
                 MR. ELEY:
                            William Eley,
     E-L-E-Y.
 8
 9
                 And my comment was that D4 only
     would cost 4 million instead of 10 million.
10
11
     But instead of 8 years, it would take 31.
12
     That's -- anything can happen in 31 years.
13
     The sooner it is done, the more likely it
14
     is to be done.
                 MR. LEÓN: You are the only
15
16
     member of the public that is left. Unless
     you have any other comments?
17
18
                 MR. ELEY:
                            No. It has been
19
     interesting.
                 MR. LEÓN: Did you want to wait
20
21
     out a little bit longer, or should we go
22
     ahead and end?
23
                 MR. DEL ROSARIO: We have
24
     another meeting tomorrow.
```



1	MR. LEÓN: We do have another
2	meeting tomorrow, and we didn't really
3	announce the closing. We just said the
4	meeting was at 6:00. I would presume that
5	if people weren't here at 6:00, that they
6	are not going to show up at 7:30.
7	MR. DEL ROSARIO: Do we have a
8	closing time?
9	MR. LEÓN: No.
10	MR. DEL ROSARIO: What's the
11	thing with regard to meetings, that I
12	recommend that we?
13	MR. LEÓN: You don't need to
14	adjourn here. We can close the record.
15	
16	(Meeting ended at 6:51
17	p.m.)
18	
19	
20	
21	
22	
23	
24	



```
1
     STATE OF ILLINOIS
                         )
 2
                            SS:
                         )
     COUNTY OF L A K E
 3
 4
 5
 6
                        I, Carrie McCann, CSR,
 8
 9
     Certified Shorthand Reporter, and a notary
10
     public in and for the County of Lake and
     State of Illinois, do hereby certify that
11
12
     the testimony given in the proceedings
13
     before on May 20, 2015 was recorded
14
     stenographically by me and transcribed by
15
     me.
16
                 I FURTHER CERTIFY that the
17
     foregoing transcript of said proceedings is
18
     a true, correct, and complete transcript of
19
     the testimony given by the said witnesses
20
     at the time and place specified.
21
                 I FURTHER CERTIFY that I am not
22
     a relative or employee or attorney or
23
     employee of such attorney or counsel, or
24
     financially interested directly or
```



1	indirectly in this action.
2	IN WITNESS WHEREOF, I have set
3	my hand.
4	
5	
6	
7	C. ma
8	Carrie McCann
9	Certified Shorthand Reporter Certificate No. 84-004374
10	Certificate No. 84-004374
11	
12	
13	
14	
15	
16	
17	
18	
19	
20	
21	
22	
23	
24	



\$	30 39:18 31 23:23 41:11,12	action 19:6 21:15 alternatives 24:20 28:20 29:21 4,6,8 20:9,22		average 20:7
\$10.6 7:21 24:1	31 23:23 41:11,12	37:19 actively 18:8	22:20 26:5 29:23 30:8	В
\$100 40:7	4	activities 19:13	amazes 37:24 38:1	back 4:9 11:11
	4 41:10	actual 12:2	amount 11:11	19:3 30:14 35:6 38:4
	4.6 24:1	add 6:14	37:14	balance 23:16
1 15:14	4.7 24:1	addition 20:16	analysis 22:20	balanced 23:15
10 15:14 41:10	5	additional 4:9	34:4	balancing 21:1,2
10.6 24:1		address 5:4,20	announce 42:3	barrier 11:16
12 12:6	5 3:6 4:7,12	17:15,22 18:3,12 21:12 24:21 28:20,	answers 26:17,21 36:6	19:24 20:5 24:5
13 12:6	50 10:12 34:19	22 29:2,5	apologies 25:3	based 3:6 14:23 23:15
14 12:6	500,000 15:2	addressed 4:4	apologize 8:16	basically 5:19 7:7
15 16:1 20:7	50s 10:14	addresses 24:23	11:1	9:19 10:12,21 11:5
1897 10:9 34:17	6	addressing 13:22 17:9 32:19	applicable 21:7	12:11 15:7 17:12 23:14 29:10
1900 10:10			applying 22:10	basis 33:8
1946 34:18	6 4:7	adjourn 42:14 administrative	approach 5:2 6:16,22 7:2 20:12	beautiful 10:4
2	6:00 42:4,5	10:1 12:1 14:3	23:15 25:18 28:19	belong 31:12
	6:51 42:16	advanced 35:21	29:5	beneficial 17:21
2 9:8	6th 15:14	advantages	approached 11:20	18:1
2-acre 9:21		22:21	approaches 26:1	bentonite 20:3
20 16:1 30:16,17	7	advice 6:11	approved 6:24	benzene 13:2
2003 10:18 11:11	7 16:3	advisor 6:7	12:8 13:20 14:3	benzo(ghi)
2004 10:18 11:12	7:30 42:6	affect 15:19	19:3	perylene 12:24
2006 10:11 11:19		Agency 3:5	approximately 7:21 9:5,8 15:2	BGS 16:4
2007 10:17 11:23	8	agency's 18:4	April 13:21 14:3	bill 26:23
2009 12:3	8 7:20 23:22 41:11	aggressive 25:18 26:1	19:3	bit 27:14 41:21
2012 12:4	80s 37:23	agreed 11:22	ARARS 21:9,16	blue 10:24 11:5 14:17
2014 12:10 30:14, 20	9	agreement 25:6	area 5:21 8:20 9:5, 14 11:9	boards 11:2
2015 14:4 37:17		26:12	areas 32:11	boat 27:16
22 9:6	9 13:21	ahead 4:13 6:18 26:13 41:22	aromatic 12:22	breadth 14:7
23 9:6	90s 10:15 37:3	air 33:5,9,10,11	arsonic 13:3	breakwater 9:2
25 37:17		Akzo-nobel 9:14,	assessment 13:8	briefly 6:1 7:22
29 14:4	A	24	assigned 4:20	BTEX 13:1
	accurately 3:22	alternative 6:22	attaining 21:7,16	building 10:1,3
3	41:6 acknowledge 6:1	7:19 13:24 19:7 21:19 22:2,13,22	Authority 9:3,12	15:20,21 32:14,15 16,23 33:15 34:6
3 11:6	acknowledge 6:1	24:9	14:13	36:9



Index: \$10.6..building

buildings 36:10			
built 35:3			
bunch 10:14			
burning 12:19			
business 27:5			

С		
calculations 14:24		
call 5:4 16:17 38:14		
called 7:5 12:22		

13:1 care 16:9 case 23:9 centered 14:12 **centers** 35:11 century 35:3 **CH2M** 6:10 charge 6:13 cheaper 40:24

chemicallyenhanced 20:14 Chicago 3:6 chlorinated 16:19 **chosen** 19:16 21:5,20 25:5,15 38:11

chrysene 12:24 circles 8:2 circumstances 21:13 **City** 9:13 clay 15:24 20:6

Clean 31:8 **cleanup** 3:8,15 10:19,20 11:22 18:15.17 21:11 23:12 25:2 26:4,11 35:21 37:5

clear 5:18 8:16

31:10 **close** 11:8 14:14 42:14 **closing** 42:3,8 Club 31:8 **coal** 12:20 16:18

collect 8:14 34:8,9 collected 7:13 collecting 8:13 24:13

colored 11:7

collects 39:18

comment 4:6 5:17 22:9 27:2 37:21 41:3,9

comments 3:18, 21,23,24 4:2,12 24:14 26:22 27:7 41:17

community 3:4 5:16 6:13

company 10:16, 20 11:20,23 25:2 30:3

comparative 22:19

compared 22:19 23:16

comparing 23:20 24:3

complicated 36:14

components 20:24

composed 9:7 20:24

compounds 12:18,22 13:1

concept 7:23 8:8

concern 5:21 12:12 26:6

conduct 11:24 conducting 12:2 consent 12:1 consideration 22:6 38:18,21

considerations 25:23

considered 19:22 20:10 21:5,20

construct 19:23 25:7,8 26:15

constructed 10:9 11:16 34:17

construction 8:1 32:4

consultant 6:10 36:24

contact 13:12

contained 14:1

contaminant 18:3 contaminants

12:12,17 13:4 21:14

contaminated 10:23 11:13 13:12, 14 17:13 31:16,21

contamination 5:3,23 12:16 15:11,16 17:11,17, 24 28:13,21,23 29:6 32:7

continue 30:2 38:7

continued 34:18 continues 33:7

continuing 11:19 13:19 28:13

contributing 15:10

control 18:10 21:11

controls 19:10,19, 20 24:4

conversation 30:3

cooperative 37:6

coordinator 3:4

copies 4:9 corners 8:3

corrected 9:1

correction 38:11

23:24 41:10

counsel 6:5 countless 37:23

County 31:9

couple 27:15 30:6

couple-fold 23:19

court 3:19 41:4 create 7:15 8:8

created 17:5

creating 12:21

creosote 16:18

criteria 21:1,2,3, 18,22 22:4,5,8,11, 15,17,18,21 23:3, 7,8,17 25:20

criticism 40:16

D

D4 20:15 23:21 39:16 40:24 41:9

D5 7:5 20:16 23:18 24:5,9

danger 31:15,20, 24

dangers 32:2

data 30:21

Dave 6:9

deal 5:3 18:7

dealing 5:11 14:7, 22 15:1 16:14 17:4 19:9 21:16 28:19 35:12

dealt 31:1

22:22

discovered 37:14

discussion 35:11

discussions 22:24

disposal 7:18





Н

dissipating 33:15 end 6:20 41:22 excavation 11:4. final 24:7,22 26:8, **gradient** 7:15 8:9 15 29:1 30:24 distribution 14:9 ended 12:4 42:16 **graph** 17:5 **exceed** 15:12 finally 38:4 **District** 9:3,11 engineered 19:23 graphical 15:5 10:2 14:13 15:20 20:5 24:5 exceeding 15:17 **find** 14:17 22:24 graphically 7:23 28:11,16 engineering District's 32:16 expect 17:7 greater 16:17 18:10 finding 29:8 **disturb** 32:2,5 expectation 20:18 enhance 20:17 17:19 18:6 fine 38:16 **DNAPL** 5:4,8 7:4, **ground** 16:2,4 enhancements experience 30:5 flows 15:22 9,11,13,16,17 8:7, 20:8 32:3,5 10,14,19 13:23 25:16 **experts** 38:19 focus 7:5 13:20 groundwater 14:8,9,11,16 15:2, entails 7:7 39:5 14:24 18:18,22 5:23 7:9,11,14 8:6, 10 16:12,15,18,21, 19:22 23:5 25:12 9,13,17,18 12:14 23 17:5,9,16 18:4, entered 4:4 explains 29:13 29:20 13:13 15:11,16,22 13,20 20:10,13,14, entering 4:11 exposing 32:6 17:11,12,13,15,20, folks 5:8 9:18 17 23:22 24:2,17, 23 18:1,15 19:12 21 25:8 26:10 environment exposure 13:17 forgot 31:6 24:6,24 26:6 28:1, 29:21 37:14 21:6,17 extensive 12:4 12,24 29:2,7,9 forward 5:24 document 6:23 **Environmental** 14:19 15:4 30:21 33:7 37:10 30:23 7:4 35:1 3:5 **extent** 18:20 **group** 13:1 found 12:11,12,14 documents 35:19 **EPA** 4:1,20 6:2,5, **guess** 18:4 extraction 8:5 13:4 15:7 11,15,24 11:21 dots 14:17 frame 17:22 23:20 guidelines 22:13 12:8 20:22 23:4,14 extremely 38:5 **driving** 13:5 17:13 25:10 36:20 37:2 frightening 38:6 guys 37:20 **drove** 12:13 **EPA'S** 3:7,12 5:2 F front 4:10 40:20 13:24 15:12 due 13:17 frustrating 38:6 facility 9:24 **ERH** 20:20 fuchsia 11:7 **half** 11:6 fact 28:10 Ε error 8:23 9:3 **future** 18:16 happen 7:24 factor 34:5 essentially 5:1 **E-I-e-y** 41:8 30:11 38:7 41:12 8:7 9:6 20:15 facts 36:2 G early 10:14 happening 27:18 estimate 14:23 familiar 5:9 east 10:3 15:23 **happy** 31:3 ethylbenzene gallons 15:2 feasibility 7:6 13:2 Eastern 9:10 harbor 10:5 27:12, 13:20 14:24 18:18, gas 3:9,10 4:22 7:1 16 22 19:2,22 22:3 evaluate 20:21 ecological 13:15, 9:7,22 10:8,10,16, 23:1,5 25:13 29:22 22:13 26:4 hard 17:3 16 20,21 11:14 14:15 30:1,13 26:12,23,24 27:5 evaluated 19:1,9 effectiveness **heal** 29:7 30:3 34:14 37:4 federal 21:9 21:23 22:1 23:10 22:8 health 21:6,17 generally 15:13 feet 11:7 16:1.4 evaluating 25:11 efficiency 20:18 31:20 16:15 23:4 20:8 evaluation 20:23 efforts 37:6 healthy 33:22 gentlemen 4:18 **Felitti** 6:4 33:13, 22:14,20 23:3,6 electric 20:19 hear 39:10 18,23 34:3,9 **give** 5:10 7:22 evening 3:2 4:17 38:20,24 39:15,21, electronically 4:3 9:15 10:7 11:2 heart 27:16 24 40:5,10 eventually 10:13 14:6,21 15:21 Eley 26:23 27:3 heating 20:20 37:13 **FFS** 13:21 16:13 36:2 38:4 36:8,13 40:24 **Heriberto** 3:3 4:17 **exact** 18:21 41:7,18 field 12:2 **goal** 18:1 5:15,19 6:12 examples 17:7 **Elgin** 9:10 **figure** 35:22 **good** 3:2 4:17 heyday 9:23 29:16,19 35:24 excavating 10:22 embark 29:20 figuring 19:18



high-density 20:3

				<u> </u>
highlights 12:11	inspections	17:6 30:2 36:21 40:16	long-term 21:22	42:11
HILL 6:10	install 7:8	kinds 25:22	longer 38:2 41:21	member 31:7,8 41:16
hinder 36:14	installed 20:6	Klatt 6:9	looked 20:2 21:22	members 6:2
horizontal 7:8 20:10 23:22	institutional	Matt 0.9	lot 9:21,23 29:24 30:4 32:22 40:24	
	19:10 24:4	L		mention 22:16 24:18
human 21:6,17	Integrys 7:1 10:11		lots 29:18	mentioned 5:16
humans 13:10	11:20 25:3 26:12	labeled 26:24	lower 9:17	31:21 33:21
husband 27:12	interested 16:10	ladies 4:17	M	met 25:24
hydraulic 7:15	22:4 24:15 27:18	lake 6:6 15:23 31:9		metals 13:3
hydrocarbons	interesting 41:19	37:1,11	Mail 4:2	mid 37:22
12:23	interim 3:8 5:20	land 9:17	main 9:9	million 7:21 15:14
	24:19,20 28:20 29:21	large 9:14	maintenance	24:1 40:7 41:10
	introduction 31:7	late 19:3	10:2 15:19,20 32:14,15,16	minus 15:14
idea 5:10	intrusive 19:13	latest 14:22		misspelling
Identify 22:21	investigation	law 18:13	major 5:3 18:12 24:8	13:15
ignore 9:4	12:3,9 13:8 15:7	layer 15:24 20:6	make 3:14 4:14	mistaken 14:18
Illinois 4:23 6:15	16:8 30:7 32:12	37:7	5:18 38:10 41:2,5	mitigates 32:22
36:20 37:2	36:21	layout 8:19	makes 36:14	mitigation 32:17
implementability	investigations 10:16 37:3,12	lead 13:3	management	mix 16:16
22:1	involve 19:3	leave 40:23	19:12	mobility 18:19
important 18:2	involved 10:22	left 6:4 41:16	manager 3:13	21:24
incidental 13:11	involvement 3:4	legend 14:10	4:20	moderate 23:24
include 19:10 20:2,10 24:16	6:13	level 9:20 11:10	manufactured 3:9 4:22 9:7,22	modifying 21:2
included 8:24	involves 19:11	34:1	10:8 14:15	22:5
12:18 14:1	involving 11:12	levels 15:13,18 33:23 34:5	map 14:8	money 38:18,20 39:10,16,22 40:3,6
increase 8:8	irrelevant 40:11		marina 10:4,5	monitoring 14:18,
23:24	issue 31:1 33:12	León 3:2,3 6:12 26:19 27:8 30:17	mass 18:19	19 25:14 32:21
individually	39:17,22	31:5 41:2,15,20	material 5:9 12:20	month 14:4
22:14	issued 4:5	42:1,9,13	15:3 17:8	move 5:24 26:1,20
influences 15:17	issuing 24:22	lights 9:18	materials 10:23	30:4,23
information 23:10 29:24 30:5,22	26:8 28:22 29:1	liquid 16:15	measures 25:24	
34:13 35:7		liquids 5:5	meat 18:23	N
informational	J	live 27:11	media 12:17 13:5	naphthalene
8:21	January 12:10	lived 27:13 37:22	24:24 26:5,9 29:24	12:23
ingestion 13:11	Joliet 9:10	located 14:15	meet 17:24 21:4,	NAPL 12:15
inhalation 13:13	June 4:7,12	location 14:13	19 22:16 23:6,7,12	Naren 25:3
initial 37:2,12		21:15	meeting 24:12 25:21 27:19 41:24	nearby 37:23
injecting 7:10	K	long 23:11 25:22	42:2,4,16	needed 25:20
injection 8:3		34:10 37:18 38:1	meetings 37:24	negotiate 25:2
-	kind 12:21 15:21		-	_



negotiated 25:6 permanent 24:2 practicable 17:20 proposes 23:14 order 12:1 21:4,5, 26:14 18:20 19.20 Pershing 9:9 proposing 7:20 negotiating 26:11 organic 12:19 preferred 5:2 23:18 24:10 38:12 person 36:23 39:3 6:16,21,22 7:2 network 14:20 organizations protecting 21:6, Peter 6:4 13:24 20:12 23:14 31:11 17 nice 6:7 17:1 24:9 28:18 38:15, phase 5:5 29:15 40:18 oversee 4:21 16 Protection 3:5 phased 29:4 nine-criteria preferring 7:2 overview 8:23 provide 5:16 20:23 physically-Owen 27:6,10,11 prepare 25:4 provided 30:22 enhanced 7:4 non-aqueous 5:5 28:6,15 29:12,18 preparing 24:14 **public** 22:9 24:12 20:12 30:10,15 31:2,6,19 non-engineering 31:14,15,20,24 prescribed 19:5 32:8,20 33:5,9,17, pick 40:8 19:20 41:16 20 34:1,7,10,15,20 presence 15:10 picked 38:9 North 3:9 4:21 35:2,8,17,20 36:4, pull 28:3 18 37:9,16 38:13, **present** 3:7,20 6:24 10:9 26:12,24 picture 8:15,22 pump 7:12 16,22 39:2,19,23 27:5 34:21 35:9, 10:11 pictures 16:21 12,15,21 36:8 37:4 40:2,9,12 purpose 4:24 presentation piling 20:4 owned 9:14 10:9 **note** 4:8 3:14,16 4:15,24 purposes 8:21 27:4 5:1,15 6:17,20 **place** 19:19 noticed 36:19 **push** 7:11,15 8:9 18:24 26:16 plan 3:8 5:20 pushback 40:21 Ρ presume 42:4 13:23 19:12 0 put 11:21 16:12 pretty 15:3 plant 3:9,10 4:22, 29:8 **p.m.** 42:17 O-w-e-n 27:11 23 5:6,18 9:8,22 previous 15:9 **paper** 12:20 10:8,12,21 11:14 30:13 objective 18:17 Q 14:15 34:11,14,21 parallel 8:4 29:13 23:12 primarily 17:10 35:9,11,12,15,21 occurred 10:15 parcels 9:17 36:8,10 quality 17:15 primary 20:24 11:13 parent 11:20 point 28:7,17 question 3:16 principal 18:5,7 off-site 7:17 32:22 27:6,21 29:17 **points** 18:12 parking 32:22 **prior** 7:14 31:13,18 35:13,14 **on-site** 7:14 polyethylene part 9:2,4 14:11 36:1,16 38:8 39:7, **probes** 32:21 19:6 23:5 37:12 20:3 ongoing 4:21 33:2 12 40:14 problem 28:11 39:10 polynuclear questioning open 3:17 26:17 33:14 35:8 12:22 parties 24:15 40:16 operate 25:8 procedures 25:12 26:15 34:11 party 25:7 **Port** 9:2.11 10:1 questions 26:17, 14:12 15:20 32:15 process 22:12 21 36:5 38:17 operated 10:12 past 30:6 40:20 portion 13:8 processes 29:14 34:21 Paul 6:6,7 37:1 quickly 15:8 produced 6:24 pose 31:14,20 operations 34:14, **PCBS** 16:20 18 product 37:15 position 29:8 R **people** 31:4,22 35:14 opportunity 5:17 program 10:20 40:19 42:5 possibly 13:12 11:22 37:5 opposed 18:9 Railroad 9:10 performance 15:18 17:24 project 3:13 4:20 option 19:16,21 25:11,14,21,23 rationale 23:18 poster 11:2 38:9 40:4 period 4:6 22:9 **property** 9:12,13 reached 11:23 **potential** 13:9,16 options 23:21 propose 26:4 periodic 33:3 read 11:1 16:9 39:13 32:2,13 31:24 33:20 proposed 3:7,15 permanence potentially 13:10 oral 3:20 5:17 13:23 20:1 21:23 ready 38:4 **Power** 31:9 orally 4:1



Index: negotiated..ready

realized 30:23	remediation 38:9	ROD 26:8	6:24 10:10 26:12,	29:6
reason 5:14	remedies 40:8	room 39:6	24 27:5 37:4	south 3:10 4:22 5:6 10:5 35:11 36:10
reasonable 17:21	remedy 21:4 24:6	roots 27:13	short-term 21:24 23:9	
reasons 24:8 27:24	25:5,8,11,15 26:15 28:12,16 29:9	Rosario 3:12 4:14, 16,19 27:1 28:5,9,	show 28:4 42:6	speaking 13:7
receive 24:15	30:24	18 29:16,19 30:12,	Sierra 31:8	31:9
received 12:8	remember 35:2	19 31:17 32:1,10 33:1,6,10 34:12,	significant 10:22	specific 5:21 19:14 32:11
receives 4:1	removal 20:18	16,23 35:5,10,18,	11:10,11 23:19,23	specifically 5:22
recent 14:23	remove 37:7	24 36:7,12,15 38:10,15 41:23	simplified 16:5	13:22 24:21
recently 6:23	repeat 31:18 39:9	42:7,10	simplify 17:6	specifics 11:17
recommend	repeating 5:19	Ross 3:11 4:14,15,	simply 27:22	spell 3:21 27:9
42:12	report 12:9,10,11 13:9 16:9 18:18	19 26:19 37:5	sinkers 16:17	spend 40:2,7
record 3:22 14:3	20:1 23:4 32:12	roughly 34:18	sir 41:3	spent 40:5
24:7,16,19,22 29:1 41:3,5 42:14	reporter 3:19 41:4	rounds 12:6	sit 31:3,23 37:19 40:17	stage 36:17
recoverable	repository 14:2	runs 4:7	site 3:13,15 4:23	stand 40:19
18:19	16:10	s	5:4,6,11,21 8:22	standard 25:21
recovery 7:5,12,	represent 14:17		9:4,8 10:24 11:14	standards 21:11
16 8:4,10,12	representation 15:6 16:5 17:2	sample 16:22	12:5,7,13 13:6 14:2,15 15:3,11	standpoint 13:16
20:11,13,14,19 23:22		sampling 12:5,7	16:6 17:14 21:13 24:23 28:14 31:16,	started 4:7 12:3
reduce 18:19	represents 11:6	33:3,5,7,11	19,22 33:4,12,18	34:17 37:17
reduction 21:23	requirements 21:8,10	savvy 39:5	36:8,9,11 37:8	starting 30:9
23:20 24:2	resistance 20:20	scratch 30:9	site-wide 17:11	state 3:21 6:2,6,19
refer 21:7	response 24:14	screening 15:13, 18	sites 9:16	10:14 21:10 27:8
referred 18:5	responsiveness	sediment 13:17	slide 15:9 16:13	State's 10:19 15:13
refers 20:23	4:4	semiannual 33:8	27:23	stated 18:18
regard 42:11	restore 17:14,20	seminars 17:1	slides 5:7 27:22 small 9:12	steel 20:4
region 3:6 7:9 8:6,	restoring 18:1	sense 9:15 10:7	soil 10:23 11:13	step 38:3
7 14:12	restricting 19:11	11:3 14:6,21 15:21	12:14 13:13 15:17	steps 24:11 25:9,
regional 6:5	result 23:13	16:13	20:3 24:24 26:6 29:2,3 31:16,21	12
regions 14:16	retired 27:15	separating 8:18	32:9 37:7	Stop 29:6
regulations 17:18 18:14	reviewed 30:20	separation 20:17	solvents 16:19	street 9:20
reinjecting 7:14	RI 12:9	series 7:8	sooner 41:13	stretching 10:17
relative 22:22	RI/FS 11:24	session 3:17	sort 8:19,22 10:7	stringent 21:10
relevant 21:8	risk 12:13 13:7,8	set 12:18,21 15:13	14:5,8 15:5 16:5,	strip 9:13
40:13,14	17:14 32:2 33:16, 19 34:5 40:19	settlement 11:23 26:14	13 17:3,5 18:10,11 19:2 22:23 29:4	study 7:6 13:20
remaining 26:5	risks 13:5,10,17	sheet 4:9 20:4	sounded 33:21	14:24 18:18,22 19:2,22 22:3 23:1,
remedial 3:12	25:1 32:13	ship 7:17	source 5:3,22	5 25:13 29:22
12:9 13:7 15:6 16:8 18:24 21:15 32:11	road 9:9 28:24	Shore 3:10 4:21	12:15 17:10,16,23 18:3 28:13,20,23	30:1,10,13



Index: realized..study

stuff 12:21	things 21:12 33:20 36:14 38:7	understanding 32:14 33:2	
successor 10:10 suggested 13:9	thought 28:15	understood 28:2	
15:1 32:12	39:6	V	
suitable 24:6 28:12 29:9	threat 18:6,7	v	
summary 4:5	threshold 21:3,18 22:16	V-e-r-e-n-a 27:11	
summer 4:6	time 17:21 23:20	vacant 9:21,23	
sumps 8:14	34:21 37:10,18 39:6 42:8	vapor 12:15 15:17 26:7 29:3 32:16	
Superfund 11:21 17:18 22:12	timeline 10:8 11:19 13:19 14:5	vapors 13:14 31:15,21 32:8,19	
support 6:15	today 39:6	33:14	
surface 13:18	tomorrow 41:24	Verena 27:10	
16:2,4 20:8	42:2	versus 23:23	
surfactants 20:16 system 8:17	tonight 3:7,11 4:1 27:20 31:10	vertical 19:23 24:4	
32:17,18	top 37:7	view 9:20	
	toxicity 21:24	volume 10:22	
I	track 9:11	21:24 24:3	
table 4:10 11:9	treat 7:13 18:8	voluntary 10:19 37:4	
15:15 16:2	treated 7:10		
takes 38:2 41:1	treating 8:17	W	
taking 8:12 25:22	treatment 7:18	wait 41:20	
talk 32:1 36:1	trichloroethylene		
talked 29:22 31:15	16:20	walk 31:23	
talking 29:10	turn 4:13 35:3	wall 11:16 20:5	
34:14	two-step 22:11	waste 18:6,7	
talks 13:23 28:9 tar 16:18	type 12:16 21:14, 15	water 11:9 13:18 15:15 16:2,16,17	
teacher 27:14	types 13:4 19:18,	Waukegan 4:23	
team 6:2,3	24 20:1 22:7	9:11,13 10:5 27:13,14,16,17	
technical 6:7,11 39:13	U	Waukegan's 3:8	
	U.S. 3:5,7,12,24	ways 26:1	
technically 39:4	4:2	web 4:8,11	
thermally- enhanced 20:19	unacceptable	website 4:3	
thickest 14:11,16	25:1	welcoming 40:18	
thickness 14:9	underneath 15:3	wells 7:8,12,13,16	
		8:1,3,4,5,6,10,12	

14:18

west 15:23

28:8,17 32:18 34:8

35:17 36:4 37:20

39:3

whichever 25:5 white 8:2 William 41:7 Winthrop 27:12 wood 12:20 wording 18:21 work 4:21 11:11 12:2 workers 32:4 world 40:3,6 wrong 30:20 36:22 38:5 X xylene 13:2 Υ year 13:21 33:8 years 7:20 10:12 23:22,23 27:15 30:6,16,18 34:19 37:17 39:18 41:11, 12



thing 6:14 26:7

42:11

29:15,19 40:7 41:1